IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Maria Castellanos et al.

Examiner: Wayne P. Amsbury

Serial No.:

09/944,919

Group Art Unit: 2171

Filed:

August 31, 2001

Docket: 1007912-1

Title:

METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING

DIRTY TEXT

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 RECEIVED

JAN 3 0 2004

Sir:

Technology Center 2100

This Communication is in response to the "Notice of Non-Compliant Amendment" (see enclosed copy) mailed on January 9, 2004.

The Amendment and Response filed on December 2, 2003 was deemed non-compliant because the amendments to the claims were not underlined, and thus the amendment did not satisfy CFR 1.121. With this Communication we have submitted a completed set of claims in response to the Notice of Non-Compliant Amendment.

Applicant believes the Amendment and Response is now compliant and is in proper condition for examination. A fee is not required with this Response, however at any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 500471.

Response to Notice of Non-Compliant Amendment

Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: 10007912-1

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

Any inquiry regarding this Communication should be directed to Steven E. Dicke at Telephone No. (612) 573-2002.

Respectfully submitted,

Maria Castellanos et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC Fifth Street Towers, Suite 2250 100 South Fifth Street Minneapolis, MN 55402 Telephone: (612) 573-2002

Facsimile: (612) 573-2005

Dated: January 26, 7004 SED: jan

Steven E. Dicke Reg. No. 38,431

Reg. 140. 36,43

<u>CERTIFICATE UNDER 37 C.F.R. 1.8</u>: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this ______ day of <u>January</u>, 2004.

Name: Steven E. Dicke







UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P.O. Box 1459 Alexandria, Virginia 22313-1450

APPLICATION NO. FILING DATE 09/944,919 08/31/2001		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
		Maria Castellanos	★ -10007912 - /	3894		
·	590 01/09/2004		EXAMINER			
	PACKARD COMPANIED PROPERTY Administration	Y .	AMSBURY, V	VAYNE P		
P.O. Box 2724	00	DECEMER	ART UNIT	PAPER NUMBER		
Fort Collins, CO 80527-2400		RECEIVED	2171	7		
		JAN 13 2004	DATE MAILED: 01/09/2004			
		HP LEGAL IPA		1		

Please find below and/or attached an Office communication concerning this application or proceeding.

US ACTION	
OUR DATE	
Paper Dated	
DAFirial	
Msg. Pt Dwgs	
Appealissue Fee	
Or Evaluate Doc	1
one month response	'ر

RECEIVED

JAN 3 0 2004

Technology Center 2100

PTO-90C (Rev. 10/03)

3





UNITED STAD DEPARTMENT OF COMMERCI U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.J. CONTROL NO.

FILING DATE

FIRST NAMED INVENTOR /
PATENT IN REEXAMINATION

ATTORNEY DOCKET NO.

EXAMINER

ART UNIT

PAPER

4

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

The proposed amendment of 12/5/03 is not in proper form. In particular, amendments to the claims are not underlined, and thus the amendment does not satisfy CFR 1.121. The timely submission under 37 CFR 1.129(a) filed on 12/5/03 is not fully responsive to the prior Office action because amendments to the claims are not underlined. Since the submission appears to be a bona fide attempt to provide a complete reply to the prior Office action, applicant is given a shortened statutory period of ONE MONTH or THIRTY DAYS from the mailing date of this letter, whichever is longer, to submit a complete reply. This shortened statutory period supersedes the time period set in the prior Office action. This time period may be extended pursuant to 37 CFR 1.136(a). If a notice of appeal and the fee set forth in 37 CFR 1.17(r) were filed prior to or with the payment of the fee set forth in 37 CFR 1.17(r) the payment of the fee set forth in 37 CFR 1.17(r) by applicant is construed as a request to dismiss the appeal and to continue prosecution under 37 CFR 1.129(a). The appeal stands dismissed.

RECEIVED

JAN 3 0 2004

Technology Center 2100

WAYNE AMSBURY PRIMARY PATENT EXAMINER

Wnz

WPA

UNITED STATES PATENT AND TRADEMARK OFFICE

Maria Castellanos et al.

Examiner: Wayne P. Amsbury

Serial No.:

09/944,919

Group Art Unit: 2171

Filed:

August 31, 2001

Docket No.: 10007912-1

Title:

METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING

DIRTY TEXT

COMPLETE CLAIM SET ACCOMPANYING RESPONSE RECEIVED TO NOTICE OF NON-COMPLIANT AMENDMENT

JAN 3 0 2004

IN THE CLAIMS

Technology Center 2100

1. (Currently Amended) A computer-implemented method for mining a document containing dirty text comprising:

removing an instance of dirty text within said document to produce a cleaned document having a content; and

performing a data mining operation on said cleaned document thereby deriving relevant information from said cleaned document and providing a summary of the content of said document.

- 2. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said removing further comprises replacing an instance of dirty text with a standard term.
- 3. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said removing further comprises removing an instance of computer code from said document.
- 4. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said removing further comprises removing a table from said document.
- 5. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said performing a data mining operation further comprises identifying a sentence within said cleaned document by identifying a beginning and an end of said sentence.



Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: H303.239.101

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

6. (Original) The method for mining a document containing dirty text as recited in Claim 5, wherein said performing a data mining operation further comprises scoring and ranking said sentence.

7. (Original) The method for mining a document containing dirty text as recited in Claim 6, wherein scoring said sentence further comprises:

selecting scoring techniques operable for summarizing non-narrative, grammatically incorrect text;

selecting scoring techniques operable for summarizing narrative, grammatically correct text; and

using said scoring techniques to score said sentence.

- 8. (Original) The method for mining a document containing dirty text as recited in Claim 7, wherein said method further comprises generating a summary derived from said scored and ranked sentences.
- 9. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said method further comprises selecting a text mining component based upon said data mining operation to be performed.
- 10. (Original) The method for mining a document containing dirty text as recited in Claim 1, wherein said method further comprises customizing said method by adjusting a parameter value.
- 11. (Currently Amended) A computer system comprising:
 - a bus;
 - a memory unit coupled to said bus; and
- a processor coupled to said bus, said processor for executing a method for mining a document containing dirty text comprising:



Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: H303.239.101

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

producing a cleaned document having a content comprising performing a general cleaning of said document by

_removing an instance of dirty text within said document <u>including instances of</u>

<u>misspelling and grammatical errors</u>, and performing a domain and task specific cleaning of said

<u>document including removing instances of computer code and tables</u> to produce a cleaned

document; and

performing a data mining operation on said cleaned document <u>including providing a</u> summary of the content of said document.

- 12. (Currently Amended) The computer system as recited in Claim 11, wherein said removing further comprises replacing an instance of dirty text with ana standard term.
- 13. (Cancelled)
- 14. (Cancelled)
- 15. (Original) The computer system as recited in Claim 11, wherein said performing a data mining operation further comprises identifying a sentence within said cleaned document by identifying a beginning and an end of said sentence.
- 16. (Original) The computer system as recited in Claim 15, wherein said performing a data mining operation further comprises scoring and ranking said sentence.
- 17. (Original) The computer system as recited in Claim 16, wherein scoring said sentence further comprises:

selecting scoring techniques operable for summarizing non-narrative, grammatically incorrect text;

Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: H303.239.101

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

selecting scoring techniques operable for summarizing narrative, grammatically correct text; and

using said scoring techniques to score said sentence.

- 18. (Currently Amended) The computer system as recited in Claim 17, wherein said method further comprises generating athe summary derived from said scored and ranked sentences.
- 19. (Original) The computer system as recited in Claim 11, wherein said method further comprises selecting a text mining component based upon said data mining operation to be performed.
- 20. (Original) The computer system as recited in Claim 11, wherein said method further comprises customizing said method by adjusting a parameter value.
- 21. (Currently Amended) A computer-useable medium having computer-readable program code embodied therein for causing a computer system to perform the steps of:

removing an instance of dirty text within said document to produce a cleaned document having a content; and

performing a data mining operation on said cleaned document to provide a summary of said content.

- 22. (Original) The computer-useable medium of Claim 21, wherein said removing further comprises replacing an instance of dirty text with a standard term.
- 23. (Original) The computer-useable medium recited in Claim 21, wherein said removing further comprises removing an instance of computer code from said document.

Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: H303.239.101

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

24. (Original) The computer-useable medium recited in Claim 21, wherein said removing further comprises removing a table from said document.

25. (Original) The computer-useable medium recited in Claim 21, wherein said performing a data mining operation further comprises identifying a sentence within said cleaned document by identifying a beginning and an end of said sentence.

26. (Original) The computer-useable medium recited in Claim 25, wherein said performing a data mining operation further comprises scoring and ranking said sentence.

27. (Original) The computer-useable medium recited in Claim 26, wherein scoring said sentence further comprises:

selecting scoring techniques operable for summarizing non-narrative, grammatically incorrect text:

selecting scoring techniques operable for summarizing narrative, grammatically correct text; and

using said scoring techniques to score said sentence.

- 28. (Original) The computer-useable medium recited in Claim 27, wherein said method further comprises generating a summary derived from said scored and ranked sentences.
- 29. (Original) The computer-useable medium as recited in Claim 21, wherein said method further comprises selecting a text mining component based upon said data mining operation to be performed.
- 30. (Original) The computer-useable medium as recited in Claim 21, wherein said method further comprises customizing said method by adjusting a parameter value.



Applicant: Maria Castellanos et al.

Serial No.: 09/944,919 Filed: August 31, 2001 Docket No.: H303.239.101

Title: METHOD AND SYSTEM FOR MINING A DOCUMENT CONTAINING DIRTY TEXT

31. (New) A computer-implemented method for mining a document containing dirty text comprising:

producing a cleaned document having a content comprising performing a general cleaning of said document by removing one or more instance of dirty text within said document including instances of misspelling and grammatical errors, and performing a domain and task specific cleaning of said document including removing instances of computer code and tables; and

performing a data mining operation on said cleaned document, including determining a sentence score for each sentence of said cleaned document and ranking the sentences from highest to lowest based on the sentence score;

generating a summary of the content of the document using the highest ranked sentences.

- 32. (New) The method of claim 31, wherein determining a sentence score for each sentence includes applying a keyword technique to each sentence.
- 33. (New) The method of claim 32, wherein determining a sentence score further comprises applying a location technique to each sentence.
- 34. (New) The method of claim 32, wherein determining a sentence score further comprises applying a semantic similarity technique to each sentence.
- 35. (New) The method of claim 34, wherein the semantic similarity technique comprises: generating a vector associated with each sentence; and

comparing each vector to every other vector, including defining a cosine of an angle between two vectors and using the cosine of the angle between two vectors to determine whether sentences represented by the two vectors are semantically related.



ATTORNEY DOCKET NO. 10007912-1

D TRADEMARK OFFICE UNITED STAT

Inventor(s):

Maria Castellanos et al.

Confirmation No.:

Application No.: 09/944,919

Examiner: Wayne P. Amsbury

Filing Date:

August 31, 2001

Group Art Unit:

2171

Title:

METHOD AND SYSTEM FOR MINING ACCUMENT CONTAINING DIRTY TEXT

Transmitted herewith is/are the following in the above-identified application:

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

JAN 3 0 2004 **Technology Center 2100**

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

٠.		••
·	31	•

Response	Response/Amenament							() Petition to extend time to respon						
New fee as calculated below							() Supplemental Declaration						
		fee (Address							nendm	ent")			
Other: F	Respo	onse to Non-Co	mplia	ınt A	mendi	ment	; Claim Set				(fee \$_			
		CLAIF	MS AS	AME	NDED 1	ву от	HER THAN A	SMAL	L ENTIT	Υ				
(1) FOR		(2) AIMS REMAINING TER AMENDMENT				(4) (5) HEST NUMBER PRESENT IOUSLY PAID FOR EXTRA		SÉNT	(6) RATE		(7) ADDITIONAL FEES			
TOTAL CLAIMS			MIN	us				=	0	х	\$18	\$	C	
INDEP. CLAIMS			MINUS		MINUS			=	. 0	х	× \$86	\$	C	
[] FIR	ST PF	RESENTATION OF A	A MUL	TIPLE	DEPEN	DENT	CLAIM			+	\$290	\$	C	
EXTENSION FEE	2	1ST MONTH \$110.00		2ND MONTH \$420.00		+	3RD MON \$950.00			4TH MONTH \$1480.00		\$	C	
									C	THEF	FEES	\$		

to Deposit Account 08-2025. At any time during the pendency of this 0 application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, 22313-1450.

Date of Deposit: Jan. 26, 2004

Typed Name: Steven E. Dicke

Respectfully submitted,

TOTAL ADDITIONAL FEE FOR THIS AMENDMENT

Maria Castellanos et al.

Steven E Dicke

Attorney/Agent for Applicant(s)

Reg. No. 38,431

Date: Jan. 26, 2004

Telephone No.: (612) 573-2002